

6. Cred Admin Applications

UNDERSTANDING ITS/CVO TECHNOLOGY APPLICATIONS

Student Manual

MODULE 6 - APPLYING THE TECHNOLOGIES TO CREDENTIALS ADMINISTRATION PROBLEMS



US Dept of Transportation

Module 6 - Applying the Technologies to Credentials Administration Problems

Title

Learning Objectives

You will be able to:

- Determine how *information system* upgrades could improve CVO credentials administration
- Determine how *network* upgrades could improve CVO credentials administration

Module Structure

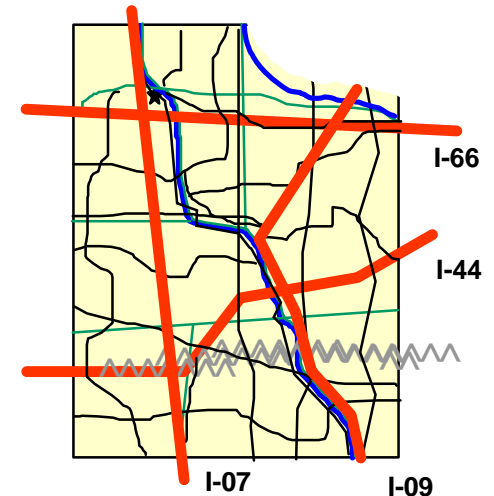
We'll use IFTA Registration as an example

- Review the credentials process today (pre-ITS)
- Exercise:
 - What improvements could be made?
 - What kinds of enabling technologies need to be in place to make these improvements?
 - Describe a better IFTA registration scenario, using information systems technology, networks, and interface standards. Illustrate it using the Midland system design template.
 - Describe the computer and connectivity enhancements needed to support the scenario. Illustrate using the Midland network template.

Credentials administration in Midland today

- long lines, unhappy customers

- Delays when applying for credentials
- Kiosks for passenger vehicle registration renewal are popular and successful
 - Small carriers are lobbying for similar improvements in service for them
 - Larger carriers want to apply for credentials from their own offices



Credentials administration in Midland today

CV Credentials in Midland include:

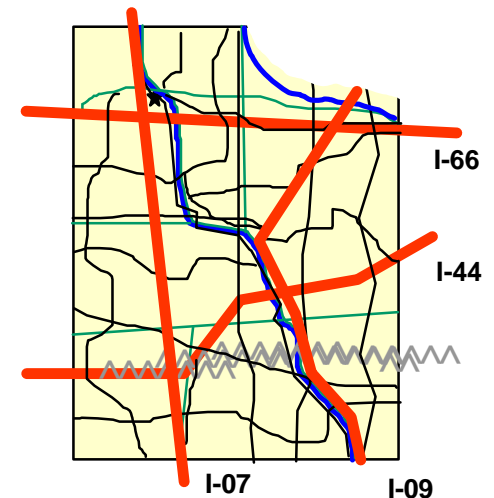
- Vehicle registration [interstate registration plan (IRP) or intrastate], title, oversize/overweight permit
- Carrier registration (including insurance verification and hazardous materials authority), interstate fuel tax (IFTA), HazMat permit
- Driver licensing

The typical process for credentialing today is:

1. Applicant requests paper form from state via phone; or state mails renewal form to applicant
2. Applicant fills in entire form and submits in person at the appropriate county-based credential facility
3. State personnel review the form in real time and ask applicant for supporting documentation, corrections, and clarification, and compute fees due.
4. Applicant pays fee via check, cash, or credit card.
5. In some cases, applicant departs with credentials (driver's license, temporary license plate, oversize/overweight permit, HazMat permit). In other cases, applicant departs with receipt, but no credential, pending further processing and checks.
6. Application information is entered into computer system in the appropriate credential office. The information is uploaded to a central site for that credential administration, and checked to see if the credential should be granted. Some checks are automated, some are manual. In most cases, the entry-check-response process takes ~5 working days.
7. If the application is approved, in most cases, credentials are printed and mailed once a week. If the application isn't approved, the applicant is contacted either by phone or mail, depending on the nature of the problem.

Credentials administration in Midland today - more business, can't hire more employees

- The State is encouraging more carriers and vehicles to be based in Midland.
- The personnel budget for commercial vehicle credentials administration is flat.

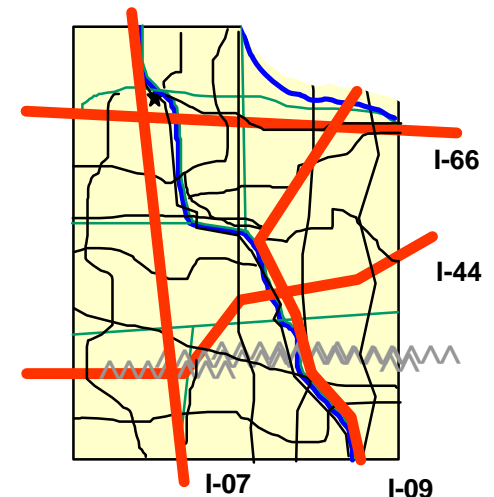


Midland's credentials administration issues

- To spur new economic development, and continue the upward trends that already exist, Midland has enacted legislation that offers tax breaks to various forms of business, including shippers and carriers.
- The state budget allows for expenditures to continue the enhancement of network and computer systems, but does not allow for adding permanent staff to the administrative offices.
- Midland was among the first states to participate in the IRP (International Registration Plan) and IFTA (International Fuel Tax Agreement) base state agreements. Under these agreements, fees are collected in a single state for registration and fuel taxes, respectively. The base state pays the other states in which the vehicle (IRP) or carrier (IFTA) operates. The existing IRP and IFTA staff are struggling to keep up with the manual process of state-to-state reconciliation.

Credentials administration in Midland today - combining safety and credentials

- Credentials enforcement at the roadside is sporadic, since it takes so long to check.
- Credentials continue to be issued without challenge to some carriers with bad safety records.



Credentials administration in Midland today - combining safety and credentials

- Currently, weigh station staff must call drivers into the scale house to physically verify paper credentials. The result is that most vehicles moving through the scales are not subject to credentials verification.
- Midland would like to be able to verify credentials without requiring the driver to spend 5 minutes or more in the scale house.
- There is no easy way to check safety status for a carrier, since the credentials offices are not connected electronically to any safety database. Before Midland allows a carrier to register for IRP or IFTA, they want to ensure that the carrier's safety performance and tax payment status meets certain standards that the state is establishing.
- Midland wants to be able to electronically query a database that indicates whether the carrier is within the limits of their established performance standards.

Discussion:

Credentials Administration improvements

- What kinds of improvements could your state (and Midland) make?
 - What are the outcomes you want to achieve?
 - Why do you want to achieve those particular outcomes?
 - How will you have to change existing business processes and/or operational concepts to achieve these outcomes?
 - What alternatives should be evaluated?

Note: we'll discuss the enabling technologies in a few minutes.

Discussion: Credentials Administration improvements

- Improvements? Jot down your ideas. For each, summarize the proposed improvement and for each one,
 - identify desired outcomes,
 - describe supporting changes required in your business processes or operational concepts,
 - explain why you make that recommendation, and
 - list what alternatives you should evaluate.

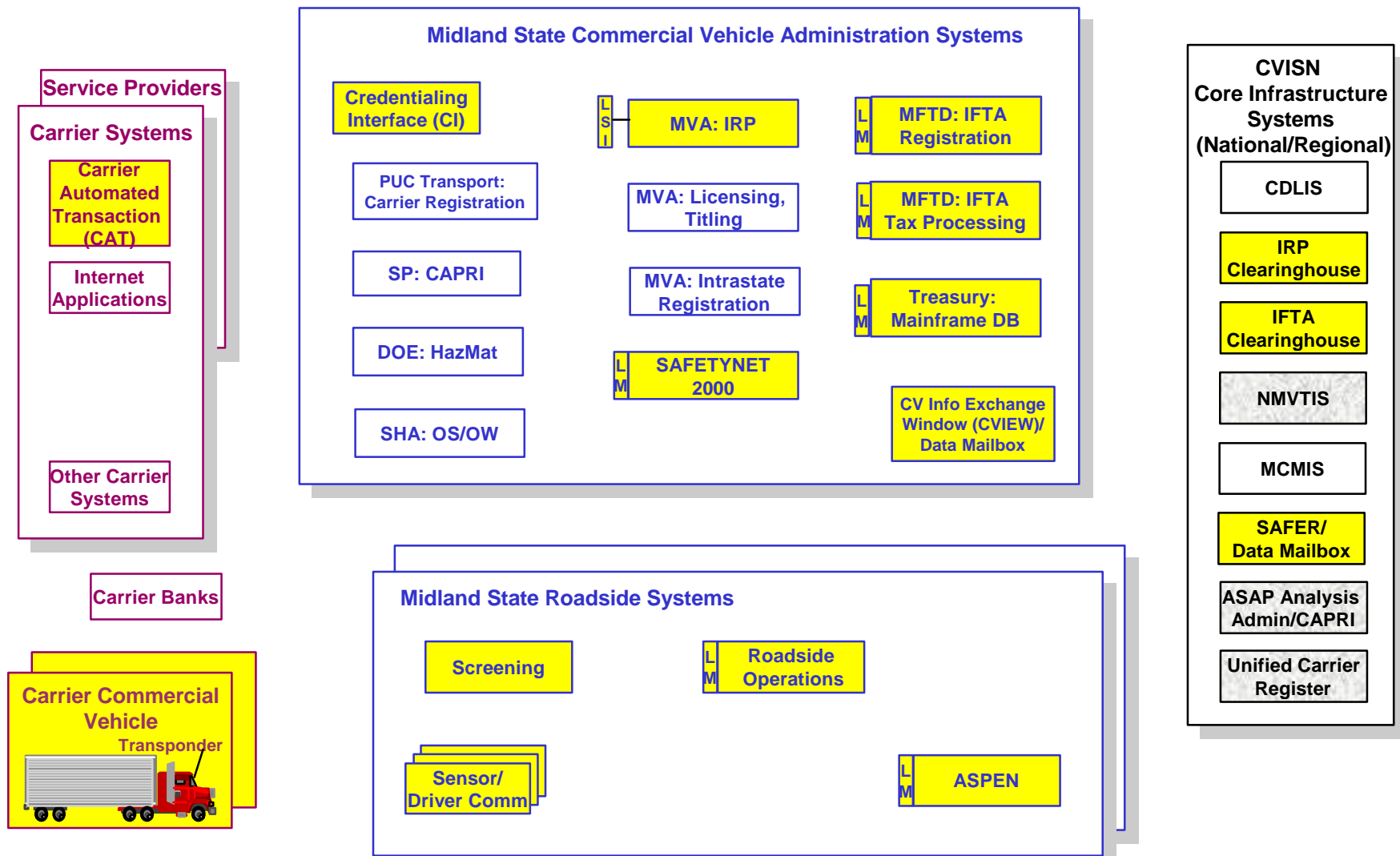
Brainstorm

- What technologies support the credentials-related outcomes and improved business processes/operational scenarios?

Discussion

Problem Areas	Technology Areas														
Credentials Administration															

Recall the proposed Midland System Design Template



Proposed Midland Design Template

- This is the template introduced in the Architecture & Design module earlier.
- We're going to use it to illustrate a new operational scenario for IFTA Registration in Midland.
- This is the same process used in the first (Scope) workshop.

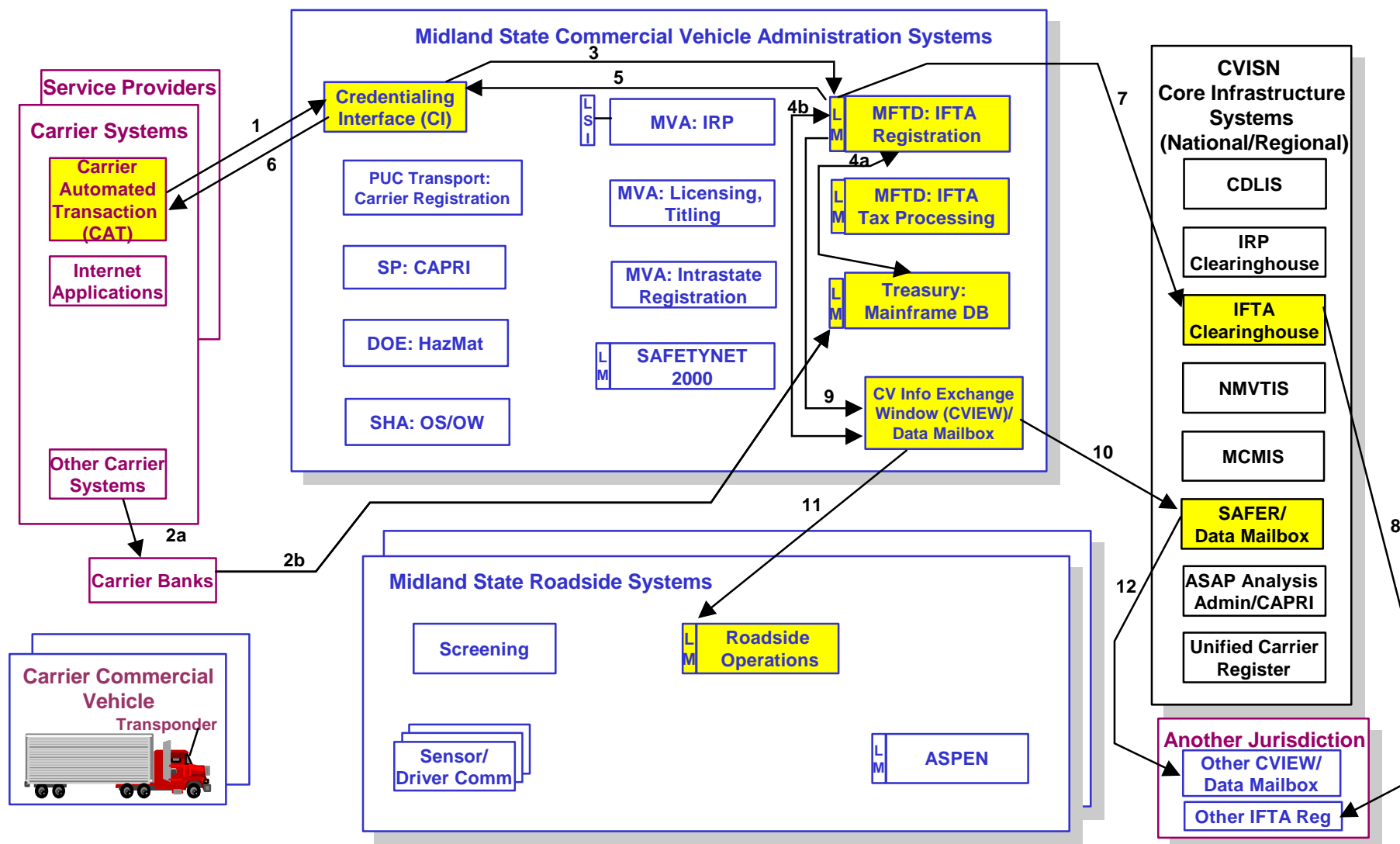
Define better operational scenarios: IFTA Registration Example

- Current process is manual, with registrants visiting the county credentials offices.
- The desired process will be electronic, with the registrants filing applications from their office computers, and the state responding electronically. The initial effort will focus on this approach, with an Internet solution next in line.

Proposed Midland Operational Scenario: IFTA Registration Thread Diagram

- We use the state system template to illustrate the operational scenario. The figure is called a functional “thread diagram”.
- HIGHLIGHTS
 - CAT to handle all credential types for carrier (not just IFTA)
 - Likewise, CI to handle all credential types from carriers
 - Modify the existing IFTA system to handle EDI transactions
 - Carrier system interacts with bank for electronic payment; processed by Treasurer in Midland.
- ISSUES:
 - What legislative action must be taken to support the scenario?
 - What payment methods should be supported?

Proposed Midland Operational Scenario: IFTA Registration Thread Diagram

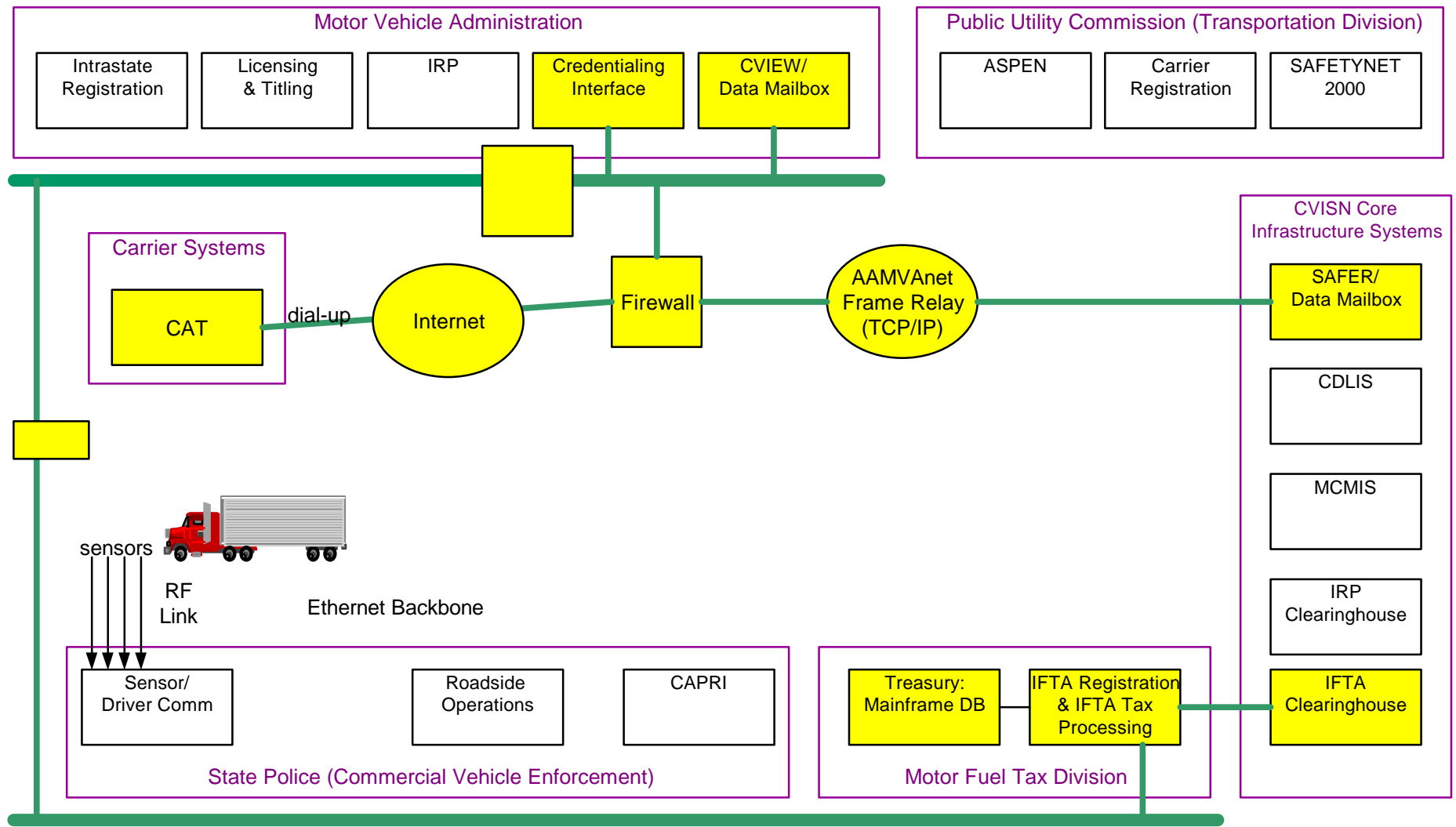


Define better operational scenarios: IFTA Registration

Details of the Proposed IFTA Registration Scenario

1. Carrier enters an IFTA credential application via a Carrier Automated Transaction (CAT) system which submits it to the Credentialing Interface (CI). Could also submit via service provider or some other carrier-based system.
2. In parallel, the carrier pays electronically through EFT.
3. The CI validates the application data and sends the application to MFTD:IFTA for processing.
4. The MFTD:IFTA product makes queries against the MFTD database and the snapshot database to determine whether to grant or deny the credential.
5. Once the credential transaction is processed by the MFTD:IFTA product, a message is returned to the CI for transmission to the Carrier CAT. If processing was completed successfully, credential information is returned. If problems were found, an error message is returned to the CI.
6. The CI sends the return message to the Carrier CAT.
7. The MFTD:IFTA product uploads new or changed IFTA credential information to the IFTA Clearinghouse periodically.
8. The IFTA Clearinghouse updates its database with registration information from all participating jurisdictions, and transmits the new carrier information to all member jurisdictions in which the carrier is registered.
9. Periodically, MFTD:IFTA creates snapshot segments for all Midland carriers with new or changed IFTA credentials and sends them to the CVIEW/Data Mailbox.
10. CVIEW/Data Mailbox updates carrier snapshots with IFTA credential data and forwards to the SAFER/Data Mailbox.
11. CVIEW/Data Mailbox also updates Midland roadside sites with IFTA data.
12. SAFER distributes full updated snapshots to CVIEW/Data Mailboxes in other jurisdictions for distribution to their roadside locations.

Improved IFTA registration: Computer & connectivity changes required



Improved IFTA registration: Computer & connectivity changes required

New/Upgraded Computers

- CAT (new)
- CI (new)
- CVIEW (new)

Connectivity Changes

- Carriers (CAT) to State CI
- Within State:
 - CI - IFTA Registration system
 - IFTA Registration - CVIEW
 - CVIEW - Roadside Operations
- Between State & CVISN Core Infrastructure
 - IFTA Registration - IFTA Clearinghouse
 - CVIEW - SAFER

Recap & Questions

The objectives . . .

- Determine how *information system* upgrades could improve CVO credentials administration
- Determine how *network* upgrades could improve CVO credentials administration

Any questions?